

Listing of the claims:

1. - 48. (Cancelled)

49. (Currently amended) A method for detecting Chagas disease in a human test subject, said method comprising:

- a) quantifying a level of RNA encoded by ~~ana~~ CDC14 cell division cycle 14 homolog A (*S. cerevisiae*) (CDC14A) gene in a blood sample of said test subject;
- b) comparing said level of RNA in said sample of said test subject with a quantified level of control RNA encoded by said gene in blood samples of control subjects which are classified as healthy control subjects; and
- c) comparing said level of RNA in said sample of said test subject with a quantified level of control RNA encoded by said gene in blood samples of control subjects which are classified as having Chagas disease;

wherein a statistically significant determination with a p value less than 0.05 resulting from steps (b) and (c) that expression of said gene in said sample of said test subject is higher with a fold-change of at least 1.5 relative to said samples of said control subjects classified as healthy control subjects, and is similar relative to said samples of said control subjects classified as having Chagas disease, is indicative of ~~chagas~~ Chagas disease in said human test subject.

50. (Currently amended) The method of claim 49, wherein said blood sample of said test subject and said blood samples of said control subjects are selected from the group consisting of whole blood samples; ~~and~~ blood samples which have not been fractionated into cell types ~~and blood samples which comprise leukocytes which have not been fractionated into cell types.~~

51. (Cancelled)

52. (Previously presented) The method of claim 49, wherein said quantifying of said level of RNA encoded by said gene in said sample of said test subject is effected relative to a housekeeping gene.

53. (Previously presented)) The method of claim 49, wherein said quantifying of said level of RNA encoded by said gene in said sample of said test subject is effected by quantification of cDNA complementary to RNA encoded by said gene.

54. (Cancelled)

55. (Canceled)

56. (Previously presented) The method of claim 49, wherein said quantifying of said level of RNA encoded by said gene is effected using quantitative PCR.

57. (Previously presented) The method of claim 49, wherein said quantifying of said level of RNA encoded by said gene is effected using an array.

58.- 63. (Cancelled)

64. (Currently amended) A method for detecting expression of a CDC14 cell division cycle 14 homolog A (S. cerevisiae) (CDC14A) gene in a human test subject, said method comprising detecting RNA encoded by said gene in a blood sample of said test subject, using an oligonucleotide of predetermined sequence which is specific only for RNA encoded by said gene in said sample, and/or for cDNA complementary to RNA encoded by said gene in said sample; The method of claim 63, further comprising quantifying a level of RNA encoded by said gene in said sample; comparing said level of RNA to a quantified level of control RNA encoded by said gene in blood samples of control subjects, wherein said control subjects are classified as healthy subjects; and classifying said test subject as being a candidate for having Chagas disease if said level of RNA encoded by said gene in said blood sample of said

human test subject is statistically higher with a fold-change of at least 1.5 and with a p value less than 0.05 relative to that of said control subjects classified as healthy subjects.

65. (Cancelled)

66. (Currently amended) A method of screening a human test subject for being a candidate for having Chagas disease, said method comprising:

(a) detecting RNA encoded by ~~ana~~ CDC14 cell division cycle 14 homolog A (*S. cerevisiae*) (*CDC14A*) gene in a blood sample of said test subject, using an oligonucleotide of predetermined sequence which is specific only for RNA encoded by said gene in said sample, and/or for cDNA complementary to RNA encoded by said gene in said sample; and

(b) quantifying a level of RNA encoded by said gene in said sample of said test subject; and

(c) comparing said level of RNA in said sample of said test subject to a quantified level of control RNA encoded by said gene in blood samples of control subjects classified as healthy subjects;

wherein said test subject is a candidate for having Chagas disease if said level of RNA encoded by said gene in said blood sample of said test subject is statistically higher with a fold change of at least 1.5 and with a p value less than 0.05 relative to said level of RNA encoded by said gene in said samples of said control subjects classified as healthy subjects.

67. (Currently amended) The method of claim ~~58, 59 or 49, 64 or 66~~, wherein said blood sample is selected from the group consisting of: a whole blood sample; and a blood sample which has not been fractionated into cell types; ~~and a blood sample which comprises leukocytes which have not been fractionated into cell types.~~

68. – 82. (Cancelled)

83. (Currently amended) The method of claim ~~58, 49, 64 or 66, 70, 76 or 77~~, wherein said human test subject is suspected of having Chagas disease.

84.-87 (Cancelled)

88. (New) The method of claim 64 or 66, wherein said blood sample of said test subject and said blood samples of said control subjects are selected from the group consisting of whole blood samples and blood samples which have not been fractionated into cell types.

89. (New) The method of claim 64 or 66, wherein said quantifying of said level of RNA encoded by said gene in said sample of said test subject is effected relative to a housekeeping gene.

90. (New) The method of claim 64 or 66, wherein said quantifying of said level of RNA encoded by said gene in said sample of said test subject is effected by quantification of cDNA complementary to RNA encoded by said gene.

91. (New) The method of claim 64 or 66, wherein said quantifying of said level of RNA encoded by said gene is effected using quantitative PCR.

92. (New) The method of claim 64 or 66, wherein said quantifying of said level of RNA encoded by said gene is effected using an array.

93. (New) The method of claim 49, further wherein a statistically significant determination with a p value less than 0.05 resulting from steps (b) and (c) that expression of said gene in said sample of said test subject is lower with a fold-change of at least 1.5 relative to said samples of said control subjects classified as having Chagas disease, and is similar relative to said samples of said control subjects classified as healthy control subjects, is indicative of an absence of Chagas disease in said human test subject.

94. (New) The method of claim 66, further wherein said test subject is a candidate for not having Chagas disease if said level of RNA encoded by said gene in said blood sample of said test subject is statistically similar with a p value less than 0.05 relative to said level of RNA encoded by said gene in said samples of said control subjects classified as healthy subjects.

95. (New) The method of claim 93 or 94, wherein said blood sample of said test subject and said blood samples of said control subjects are selected from the group consisting of whole blood samples and blood samples which have not been fractionated into cell types.
96. (New) The method of claim 93 or 94, wherein said quantifying of said level of RNA encoded by said gene in said sample of said test subject is effected relative to a housekeeping gene.
97. (New) The method of claim 93 or 94, wherein said quantifying of said level of RNA encoded by said gene in said sample of said test subject is effected by quantification of cDNA complementary to RNA encoded by said gene.
98. (New) The method of claim 93 or 94, wherein said quantifying of said level of RNA encoded by said gene is effected using quantitative PCR.
99. (New) The method of claim 93 or 94, wherein said quantifying of said level of RNA encoded by said gene is effected using an array.
100. (New) A method for detecting Chagas disease in a human test subject, said method comprising:
 - a) quantifying a level of RNA encoded by a CDC14 cell division cycle 14 homolog A (*S. cerevisiae*) (CDC14A) gene in a blood sample of said test subject; and
 - b) comparing said level of RNA in said sample of said test subject with a quantified level of control RNA encoded by said gene in blood samples of control subjects which are classified as healthy control subjects;wherein a statistically significant determination with a p value less than 0.05 resulting from step (b) that expression of said gene in said sample of said test subject is higher with a fold-change of at least 1.5 relative to said samples of said control subjects classified as healthy control subjects is indicative of Chagas disease in said human test subject.
101. (New) A method for detecting Chagas disease in a human test subject, said method comprising:

a) quantifying a level of RNA encoded by a CDC14 cell division cycle 14 homolog A (*S. cerevisiae*) (CDC14A) gene in a blood sample of said test subject; and

b) comparing said level of RNA in said sample of said test subject with a quantified level of control RNA encoded by said gene in blood samples of control subjects which are classified as subjects having Chagas disease;

wherein a statistically significant determination with a p value less than 0.05 resulting from steps (b) and (c) that expression of said gene in said sample of said test subject is similar relative to said samples of said control subjects classified as subjects having Chagas disease is indicative of Chagas disease in said human test subject.

102. (New) A method of screening a human test subject for being a candidate for having Chagas disease, said method comprising:

(a) detecting RNA encoded by a CDC14 cell division cycle 14 homolog A (*S. cerevisiae*) (CDC14A) gene in a blood sample of said test subject, using an oligonucleotide of predetermined sequence which is specific only for RNA encoded by said gene in said sample, and/or for cDNA complementary to RNA encoded by said gene in said sample; and

(b) quantifying a level of RNA encoded by said gene in said sample of said test subject; and

(c) comparing said level of RNA in said sample of said test subject to a quantified level of control RNA encoded by said gene in blood samples of control subjects classified as subjects having Chagas disease;

wherein said test subject is a candidate for having Chagas disease if said level of RNA encoded by said gene in said blood sample of said test subject is statistically similar with a p value less than 0.05 relative to said level of RNA encoded by said gene in said samples of said control subjects classified as subjects having Chagas disease.

103. (New) A method of screening a human test subject for being a candidate for having Chagas disease, said method comprising:

- (a) detecting RNA encoded by a CDC14 cell division cycle 14 homolog A (*S. cerevisiae*) (CDC14A) gene in a blood sample of said test subject, using an oligonucleotide of predetermined sequence which is specific only for RNA encoded by said gene in said sample, and/or for cDNA complementary to RNA encoded by said gene in said sample; and
- (b) quantifying a level of RNA encoded by said gene in said sample of said test subject; and
- (c) comparing said level of RNA in said sample of said test subject to a quantified level of control RNA encoded by said gene in blood samples of control subjects classified as healthy subjects; and
- (d) comparing said level of RNA in said sample of said test subject to a quantified level of control RNA encoded by said gene in blood samples of control subjects classified as having Chagas disease;

wherein said test subject is a candidate for having Chagas disease if said level of RNA encoded by said gene in said blood sample of said test subject is statistically higher with a fold change of at least 1.5 and with a p value less than 0.05 relative to said level of RNA encoded by said gene in said samples of said control subjects classified as healthy subjects and is statistically similar with a p value less than 0.05 relative to said level of RNA encoded by said gene in said samples of said control subjects classified as having Chagas disease.

104. (New) The method of claim 100, 101, 102 or 103, wherein said blood sample of said test subject and said blood samples of said control subjects are selected from the group consisting of whole blood samples and blood samples which have not been fractionated into cell types.

105. (New) The method of claim 100, 101, 102 or 103, wherein said quantifying of said level of RNA encoded by said gene in said sample of said test subject is effected relative to a housekeeping gene.

106. (New) The method of claim 100, 101, 102 or 103, wherein said quantifying of said level of RNA encoded by said gene in said sample of said test subject is effected by quantification of cDNA complementary to RNA encoded by said gene.

107. (New) The method of claim 100, 101, 102 or 103, wherein said quantifying of said level of RNA encoded by said gene is effected using quantitative PCR.

108. (New) The method of claim 100, 101, 102 or 103, wherein said quantifying of said level of RNA encoded by said gene is effected using an array.

109. (New) The method of claim 100, 101, 102 or 103, wherein said human test subject is suspected of having Chagas disease.

110. (New) The method of claim 100, further wherein a statistically significant determination with a p value less than 0.05 resulting from step (b) that expression of said gene in said sample of said test subject is similar relative to said samples of said control subjects classified as healthy control subjects is indicative of an absence of Chagas disease in said human test subject.

111. (New) The method of claim 101, further wherein a statistically significant determination with a p value less than 0.05 resulting from steps (b) and (c) that expression of said gene in said sample of said test subject is lower with a fold-change of at least 1.5 relative to said samples of said control subjects classified as subjects having Chagas disease is indicative of an absence of Chagas disease in said human test subject.

112. (New) The method of claim 102, further wherein said test subject is a candidate for not having Chagas disease if said level of RNA encoded by said gene in said blood sample of said test subject is statistically lower with a fold change of at least 1.5 and with a p value less than 0.05 relative to said level of RNA encoded by said gene in said samples of said control subjects classified as subjects having Chagas disease.

113. (New) The method of claim 103, further wherein said test subject is a candidate for not having Chagas disease if said level of RNA encoded by said gene in said blood sample of said test subject is statistically lower with a fold change of at least 1.5 and with a p value less than 0.05 relative to said level of RNA encoded by said gene in said samples of said control

subjects classified as having Chagas disease and is statistically similar with a p value less than 0.05 relative to said level of RNA encoded by said gene in said samples of said control subjects classified as healthy subjects.

114. (New) The method of claim 110, 111, 112 or 113, wherein said blood sample of said test subject and said blood samples of said control subjects are selected from the group consisting of whole blood samples and blood samples which have not been fractionated into cell types.

115. (New) The method of claim 110, 111, 112 or 113, wherein said quantifying of said level of RNA encoded by said gene in said sample of said test subject is effected relative to a housekeeping gene.

116. (New) The method of claim 110, 111, 112 or 113, wherein said quantifying of said level of RNA encoded by said gene in said sample of said test subject is effected by quantification of cDNA complementary to RNA encoded by said gene.

117. (New) The method of claim 110, 111, 112 or 113, wherein said quantifying of said level of RNA encoded by said gene is effected using quantitative PCR.

118. (New) The method of claim 110, 111, 112 or 113, wherein said quantifying of said level of RNA encoded by said gene is effected using an array.

119. (New) The method of claim 110, 111, 112 or 113, wherein said human test subject is suspected of having Chagas disease.